### **Executive Summaries**

## Food Assistance and Child Well-Being

## Medicaid at Birth, WIC Takeup, and Children's Outcomes

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Grant awarded by the Institute for Research on Poverty, University of Wisconsin-Madison

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) provides participants with supplemental foods, nutrition education, and health referrals. While WIC was originally established to address malnutrition and hunger, today many children are at risk of obesity. The Surgeon General's 2001 report on obesity emphasizes the importance of early intervention to prevent obesity, since eating habits are hard to change once they are formed. Hence, the prevention of overweight and obesity is now an important goal of WIC. This study examined to what extent WIC is meeting this goal among young children.

Most previous research focuses on WIC participation during pregnancy and on birth outcomes. This study examined the WIC participation rate among eligible 4-year-old children (which is referred to as WIC takeup) and documented the effect of childhood WIC participation on risk of obesity. The study used data on WIC participation, child anthropometrics, health, and health care utilization from the 1996 and 2001 panels of the Survey of Income and Program Participation (SIPP). The main empirical challenge in this study was to account for the possibility that women select into WIC based on unobservable characteristics that also affect their health outcomes. For example, if women in poor health are more likely to participate in WIC, then standard estimation procedures will lead to biased estimates of the effect of WIC on health outcomes. The authors showed that recent changes to the Medicaid program had significant effects on WIC takeup, and used the Medicaid changes as instruments to identify the effects of WIC on child outcomes.

WIC participation among children may have been affected by two recent changes to the Medicaid program. First, higher Medicaid cutoffs for infants are likely to affect childhood WIC participation because most children who use WIC began using the program as infants, and Medicaid confers automatic eligibility for WIC. The authors showed that higher Medicaid cutoffs during infancy induced the infants' mothers to join both Medicaid and WIC, and that some fraction of these new entrants remained on the program through early childhood.

The second Medicaid eligibility change occurred through the State Child Health Insurance Program (SCHIP). Under SCHIP, States were given the option of extending public health insurance to uninsured children either by expanding Medicaid or by creating a separate, standalone program (or by some combination). Because Medicaid participants are eligible for WIC, States that used SCHIP to expand Medicaid also expanded eligibility for WIC among children. However, the study showed that these changes had little impact on children's WIC participation, suggesting that it is difficult to enroll children who did not participate as infants.

In the instrumental variables models, WIC participation at age four is associated with a large and statistically significant reduction in the probability that children are at risk of overweight (defined as having a Body Mass Index above the 85th percentile for sex and age). WIC has no significant effect on use of health care, which supports the interpretation that the effects on weight are due to the nutritional component of the WIC program rather than to any links between WIC and current access to medical care.

The study results suggest that either the nutrition education, the provision of nutritious foods, or both helps prevent obesity among young children. An important caveat is that the close link between Medicaid coverage of the birth, WIC participation during infancy, and WIC participation during childhood makes it difficult to isolate the net effect of WIC during childhood.

# Exploring the Influence of the National School Lunch Program On Children Using The Early Childhood Longitudinal Study

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This study examined the effects of participation in the National School Lunch Program (NSLP) on changes in children's behavior, test scores, and body weight, and whether these effects differ by gender. The NSLP serves approximately 28 million children each school day with estimated expenditures in 2002 of \$6.1 billion. Results from this study can assist policymakers in understanding the role of the NSLP in influencing child health, academic well-being, and social development.

Most previous work on the NSLP has focused on how participating in the program influences children's nutritional intake, finding some evidence of increased intakes of some vitamins, minerals, and fats. Previous research has not examined thoroughly how the NSLP influences other outcomes, such as test scores, body weight, or social adjustment. Nor has previous work on the NSLP examined how sub-groups of children may respond differently to the program. Previous research by the authors investigated the associations between food insecurity, NSLP participation, and children's well-being, and found that participation in the NSLP did not significantly impact these outcomes. However, that study was limited by the use of only 1 year of data on children.

The authors used data from the 1998 Early Childhood Longitudinal Study-Kindergarten Cohort, a nationally representative sample of approximately 22,000 children who were enrolled in roughly 1,000 kindergarten programs during the 1998-1999 school year and were followed through their first grade year in 1999-2000.

Because children who participate in the NSLP may differ in unobservable ways from those who do not, the authors used a first-difference model that relates changes in children's participation in the NSLP to changes in child outcomes between kindergarten and first grade. The model controlled for all time-invariant factors that may be associated with the likelihood that a child participates in the NSLP.

The analysis showed that receiving a school lunch is associated with an increase in children's math and reading scores. No effects of NSLP participation on children's body weight or behavior problems were found. Looking separately by gender revealed that receiving a school lunch is particularly beneficial for boys' reading scores, but is not associated with improved test scores for girls.

The results from these analyses provide insight into the ways in which a widely used food assistance program may influence the well-being of U.S. children. In general, participating in the National School Lunch Program can lead to improvements in the test scores of boys between kindergarten and first grade.